

ANNUAL SHELLFISH MANAGEMENT REVIEW
for the period
January 1st to December 31st, 2006

Municipality: Brunswick

Date: 02/27/07

The Shellfish Conservation Committee submits the following information in partial fulfillment of its responsibilities under Chapter 7 of the Department of Marine Resources Regulations and the Shellfish Conservation Ordinance of this municipality.

Statement of Management Goals and Implementation Actions

The goals of shellfish management for this municipality have been: (check only one of each pair)

- 1) ☒ provide a harvesting opportunity for the maximum number of participants
☐ maximize individual harvest by minimizing the number of participants
- 2) ☐ increase the clam resource through various enhancement activities
☒ maintain a sustainable yield through the vigorous use of production controls
- 3) ☐ provide for recreational harvesting in preference to commercial harvesting
☒ provide for commercial harvesting in preference to recreational harvesting
- 4) ☒ maximize the economic value of the resource by adjusting production
☐ maintain a constant production to provide a steady but variable income

The following management controls were utilized: (check all that apply)

- ☒ limit the number of commercial harvesters
- ☒ limit the number of recreational harvesters
- ☒ restrict times of harvest
- ☒ restrict the areas of harvest
- ☐ limit the amount of commercial harvest
- ☒ limit the amount of recreational harvest
- ☐ other:

The following management activities were undertaken: (check all that apply)

- ☒ predator protection through fencing, netting, trapping and etc.
- ☒ reseeding from high density areas or seeding with hatchery stock
- ☒ flat surveys to determine size distribution and density
- ☐ harvester surveys to obtain catch and effort data
- ☐ enhance natural seeding through brushing, roughing and etc.
- ☒ establishing conservation areas for flat rotation
- ☐ other: ____

Shellfish Committee/Staff**Municipality:** Brunswick

Title	Name	Mailing Address	Telephone
Chair	<u>John Lemont</u>	<u>21 Maple Street, Brunswick , 04011</u>	<u>725-6507</u>
Vice Chair	<u>Charles Vaughn</u>	<u>866 Merepoint Rd., Brunswick, 04011</u>	<u>725-8012</u>
Secretary	<u>Mark Latti</u>	<u>33 Hemlock Rd., Brunswick, 04011</u>	<u>729-1592</u>
Member(s)	<u>Robert Graffam Jr.</u>	<u>42 Pleasant St. #6, Brunswick, 04011</u>	<u>Unlisted</u>
	<u>Matthew MacLeod</u>	<u>149 Jordan Ave., Brunswick, 04011</u>	<u>725-4706</u>
	<u>James Nottingham</u>	<u>29 Tufton St. , Brunswick, 04011</u>	<u>443-5230</u>
	<u>Frederick Wigand</u>	<u>80 Pleasant St., Brunswick, 04011</u>	<u>729-0363</u>
	<u>Raymond Trombley</u>	<u>43 Bay Bridge Rd., Brunswick, 04011</u>	<u>442-0195</u>
Wardens	<u>Daniel Devereaux</u>	<u>28 Federal St., Brunswick, 04011</u>	<u>725-6631</u>
	<u>Matthew Wyman</u>	<u>28 Federal St., Brunswick, 04011</u>	<u>725-6631</u>
WQSpec(s)	<u>Tim Lukas (NRP)</u>	<u>28 Federal St., Brunswick, 04011</u>	<u>725-6639</u>

Committee MeetingsThe Shellfish Committee holds regularly scheduled meetings: ☒ yes [] noThe following number of meetings was held during the past year: 14Minutes of meetings are recorded, filed and are available upon request: ☒ yes [] no**Conservation Credit**The opportunity to obtain conservation credit is provided: ☒ yes [] noThe total number of conservation hours needed to obtain credit is 10.Conservation credit is required to obtain a: ☒ renewal license

[] new license

Conservation hours are given for:

<input checked="" type="checkbox"/> meeting attendance	<input checked="" type="checkbox"/> coastal cleanup	<input checked="" type="checkbox"/> brushing
<input checked="" type="checkbox"/> committee service	<input checked="" type="checkbox"/> surveys	<input checked="" type="checkbox"/> predator control
<input checked="" type="checkbox"/> educational activities	<input checked="" type="checkbox"/> reseeding	<input checked="" type="checkbox"/>

If conservation credit is not provided, the total number of volunteer man-hours documented for management activities during the past year is

Summary of Warden Activities

Municipality: Brunswick

Hours Patrolled:	<u>1,950</u>
Diggers Checked:	<u>1,205</u>
Warnings Given:	<u>25</u>
Summon Issued:	<u>5</u>
Court Appearances:	<u>1</u>
Convictions:	<u>3</u>

Enforcement of the shellfish management ordinance has been: ☒ satisfactory
☐ unsatisfactory

Enforcement could be improved by:

<input checked="" type="checkbox"/> more hours patrolled	<input type="checkbox"/> better training
<input checked="" type="checkbox"/> more wardens	<input checked="" type="checkbox"/> greater state support
<input checked="" type="checkbox"/> better equipment	<input checked="" type="checkbox"/> other: <i>Municipal Warden Association</i>

The warden is provided with a written job description: ☒ yes ☐ no

Production Data Collected by the Warden

Month	Avg. Daily Catch/Digger	Avg. # of Diggers/Day	Total # of Days Dug	Total Lbs [] or Bu [X]
January	1.0	6	12	72
February	1.25	8	16	160
March	1.50	19	20	570
April	2.0	38	23	1,748
May	2.0	42	25	2,100
June	2.5	44	22	2,420
July	2.0	51	21	2,142
August	2.0	41	19	1,558
September	1.5	39	21	1,228.5
October	3.0	53	22	3,498
November	2.5	40	24	2,400
December	3.5	36	16	2,016
			TOTAL	19,912.5

Warden(s)

Training Date

Nomination Date

Daniel Devereaux

4/26/2006

1/1/2006

Joel Bruce (reserve)

4/29/2005

1/1/2006

Matthew Wyman

4/28/2006

1/1/2006

Shellfish Conservation Budget
Municipality: Brunswick

License Receipts	Allocation	Sold	Received
<i>Commercial</i>			
Resident	67	67	\$13,400
Nonresident	7	7	\$2,800
Senior Resident	-	-	\$0
Senior Nonresident	-	-	\$0
Junior/Student Resident	10	10	\$500
Junior/Student Nonresident	1	1	\$100
Other:	-	-	\$0
<i>Recreational</i>			
Resident	NL	119	\$1,185
Nonresident	10%	11	\$330
Daily/Weekly/Monthly Res.	-	-	\$0
Daily/Weekly/Monthly Nonres.	-	-	\$0
Senior Resident	-	-	\$0
Senior Nonresident	-	-	\$0
Junior/Student Resident	-	-	\$0
Junior/Student Nonresident	-	-	\$0
Other:	-	-	\$0
SUBTOTAL (1)			\$18315
Receipts Independent of License Fees			
Shellfish Conservation Account Carried Forward			\$0
Funds Raised for Warden			\$61,080
Funds Raised for Management Activities			\$21,514
Fines			\$1,204
Other			\$12,500
SUBTOTAL (2)			\$96,298
TOTAL Receipts (1+2)			\$114,613
Disbursements			
Warden Salary			\$59,645
Mileage			\$3,500
Clothing			\$2,300
Equipment			\$5,750
Training			\$3,575
SUBTOTAL (3)			\$74,770
Advertising			\$800
Supplies			\$4,000
Surveys			\$200
Seeding			\$150
Miscellaneous			\$1,000
SUBTOTAL (4)			\$6,150
TOTAL Disbursements (3+4)			\$80,920

Management Activities by Flat**Municipality:** Brunswick

The following is a list of clam harvest areas in which management activities were conducted during the past year and the dates when they occurred. [] No activities were conducted.

Harvest Area	Clam Survey	Seed/Reseed	Predator Control	Brushing/Roughing	Conservation Closure
<i>Barnes Landing</i>	<i>8/13</i>				
<i>Big Bull Pen</i>	<i>11/12</i>				
<i>Bunganuc</i>	<i>12/14</i>				
<i>Buttermilk (Gurnet)</i>	<i>12/13</i>				<i>10/18</i>
<i>Coombs Island</i>	<i>11/12</i>				
<i>Harpswell Cove</i>	<i>11/28</i>				
<i>Little Bull Pen</i>	<i>10/17</i>				
<i>Maquit Bay</i>	<i>12/15</i>	<i>6/18</i>		<i>6/18</i>	
<i>Middle Bay</i>	<i>12/17</i>				
<i>New Meadows</i>	<i>10/04</i>				
<i>Princess Point</i>	<i>10/18</i>				
<i>Smith Cove</i>	<i>12/17</i>				
<i>Thomas Point Beach</i>	<i>10/01</i>	<i>4/8</i>	<i>4/8</i>	<i>4/8</i>	

Proposed Management Controls

Municipality: Brunswick

The following management controls will be utilized for the coming year: (check all that apply)

- ☒ limit the number of commercial harvesters
- ☒ limit the number of recreational harvesters
- ☒ restrict times of harvest
- ☒ restrict the areas of harvest
- ☐ limit the amount of commercial harvest
- ☒ limit the amount of recreational harvest
- ☐ other:

Proposed Shellfish Licenses

<u>License</u>	<u>Number</u>	<u>Cost @</u>
<i>Commercial</i>		
Resident	<u>51</u>	<u>\$200</u>
Nonresident	<u>6</u>	<u>\$200</u>
Senior Resident	<u>-</u>	<u>-</u>
Senior Nonresident	<u>-</u>	<u>-</u>
Junior/Student Resident	<u>-</u>	<u>-</u>
Junior/Student Nonresident	<u>-</u>	<u>-</u>
Other:	<u>-</u>	<u>-</u>
<i>Recreational</i>		
Resident	<u>100</u>	<u>\$15</u>
Nonresident	<u>10</u>	<u>\$30</u>
Daily/Weekly Monthly Res.	<u>-</u>	<u>-</u>
Daily/Weekly Monthly Nonres.	<u>-</u>	<u>-</u>
Senior Resident	<u>-</u>	<u>-</u>
Senior Nonresident	<u>-</u>	<u>-</u>
Junior/Student Resident	<u>-</u>	<u>-</u>
Junior/Student Nonresident	<u>-</u>	<u>-</u>
Other:	<u>-</u>	<u>-</u>

License number determination is based upon: ☒ calculation using survey data
☐ survey data as a guide
☐ harvester input
☐ need/demand

The above numbers are:

- ☐ tentative, the actual numbers to be determined later
- ☒ firm, have been or will be submitted to DMR

Proposed Management Activities

Municipality: Brunswick

The following management activities will be undertaken during the coming year: (check all that apply)

- ☐ predator protection through fencing, netting, trapping and etc.
- ☒ reseeding from high density areas or with hatchery stock
- ☒ flat surveys to determine size distribution and density
- ☒ harvester surveys to obtain catch and effort data
- ☐ enhance natural seeding through brushing, roughing and etc.
- ☒ establishing conservation areas for flat rotation
- ☒ other: Extensive Shoreline Surveys

In order to implement these management activities the committee will utilize: (check all that apply)

- ☒ harvesters vested with conservation credit
- ☐ harvester volunteers
- ☐ paid harvesters
- ☒ municipal employees
- ☒ paid consultants
- ☒ other:

To provide a forum for harvester input in management planning, the shellfish committee plans to meet:

- ☐ annually
- ☐ biannually
- ☐ quarterly
- ☐ bimonthly
- ☒ monthly

Meeting notification for other than regularly scheduled meetings is by:

- ☒ mailing
- ☐ phone call
- ☒ posting
- ☐ newspaper
- ☒ word of mouth

In order to keep the DMR informed and to solicit advice on management activities, the shellfish committee will:

- ☐ request the area biologist to participate in all meetings
- ☐ request the area biologist to participate in only specific meetings
- ☒ invite the area biologist to attend all meetings
- ☐ invite the area biologist to attend only specific meetings

Proposed Activities by Flat**Municipality:** Brunswick

The following is a list of clam harvest areas in which management activities are planned for the coming year and the probable dates the activities would occur.

☐ No activities are planned. ☐ No specific activities are planned as yet.

Harvest Area	Clam Survey	Seed/Reseed	Predator Control	Brushing/Roughing	Conservation Closure
<i>Barnes Landing</i>	<i>8/3</i>				
<i>Big Bull Pen</i>	<i>8/5</i>				
<i>Bunganuc</i>	<i>8/19</i>				
<i>Buttermilk (Gurnet)</i>	<i>8/21</i>				
<i>Coombs Island</i>	<i>8/24</i>				<i>5/20</i>
<i>Harpswell Cove</i>	<i>8/25</i>				
<i>Little Bull Pen</i>	<i>9/3</i>				
<i>Maquoit Bay</i>	<i>9/4</i>				
<i>Middle Bay</i>	<i>9/12</i>				
<i>New Meadows</i>	<i>9/20</i>				<i>4/15</i>
<i>Princess Point</i>	<i>10/8</i>				
<i>Smith Cove</i>	<i>10/9</i>				
<i>Thomas Point Beach</i>	<i>10/11</i>	<i>5/20</i>			<i>5/20</i>

Summary of Clam Flat Survey Data**Municipality:** Brunswick

The following is a list of surveys conducted during the past year. Survey data should be attached if not previously provided to DMR. [] No surveys were conducted.

Clam Flat	Survey Date	Acreage	Density (bu/a)	Standing Crop (bu.)	%>2" by vol.
<i>Barnes landing</i>	<i>8/13</i>	<i>5</i>	<i>15</i>	<i>75</i>	<i>39</i>
<i>Big Bull Pen</i>	<i>11/12</i>	<i>33</i>	<i>34.5</i>	<i>1,136</i>	<i>62</i>
<i>Bunganuc</i>	<i>12/14</i>	<i>20</i>	<i>75.2</i>	<i>1,503</i>	<i>71</i>
<i>Buttermilk (Gurnet)</i>	<i>12/13</i>	<i>12</i>	<i>44.8</i>	<i>537</i>	<i>79</i>
<i>Coombs Island</i>	<i>11/12</i>	<i>10</i>	<i>15.3</i>	<i>153</i>	<i>39</i>
<i>Harpswell Cove</i>	<i>11/28</i>	<i>15</i>	<i>28.9</i>	<i>433</i>	<i>55</i>
<i>Little Bull Pen</i>	<i>10/17</i>	<i>5</i>	<i>18.1</i>	<i>94</i>	<i>59</i>
<i>Maquoit Bay</i>	<i>12/15</i>	<i>60</i>	<i>28.9</i>	<i>4,395</i>	<i>73</i>
<i>Middle Bay</i>	<i>12/17</i>	<i>153</i>	<i>18.1</i>	<i>12,272</i>	<i>57</i>
<i>New Meadows</i>	<i>10/04</i>	<i>7</i>	<i>61.3</i>	<i>429</i>	<i>84</i>
<i>Princess Point</i>	<i>10/18</i>	<i>17</i>	<i>44.1</i>	<i>750</i>	<i>55</i>
<i>Smith Cove</i>	<i>12/17</i>	<i>5</i>	<i>21.6</i>	<i>108</i>	<i>61</i>
<i>Thomas Point Beach</i>	<i>10/01</i>	<i>25</i>	<i>34.4</i>	<i>862</i>	<i>52</i>

The flats surveyed represent approximately 100% of the total productive flats.

Summary of Transplant Activities**Municipality:** Brunswick

The following seeding / reseeding activities were conducted during the past year.

☐ No seeding / reseeding activities were conducted.

	Event 1	Event 2	Event 3	Event 4
Date	4/8/2006	6/18/2006		
Supervisor	Devereaux	Devereux		
Crew #	21	19		
Amount	6 bu	21.75 bu		
Mean Size (in.)	0.50	1.25		
Size Range (in.)	0.10 - 1.5	0.25 - 2.50		
Source				
Source Flat	Thomas Point Inner	Bunganuc		
Receiv. Flat	Thomas Point Outer	Maquoit Bay		
Netted (y/n)	y	n		
Closed until	n/a	n/a		

	Event 5	Event 6	Event 7	Event 8
Date				
Supervisor				
Crew #				
Amount				
Mean Size				
Size Range				
Source				
Source Flat				
Receiv. Flat				
Netted (y/n)				
Closed until				

Summary of Conservation Closures

Municipality: Brunswick

The following is a list of conservation closures implemented or in effect during the past year.
(This table is for areas normally open.) ☐ No conservation areas were closed.

Conservation Area	Acreage	Closing Date	Opening Date	Days Closed*	Reason
<i>Town Wide Flats</i>	<i>299</i>	<i>6/16</i>	<i>Indefinite</i>	<i>58</i>	<i>Sustainability</i>

*during 2006

Summary of Conservation Openings

The following is a list of conservation openings implemented or in effect during the past year.
(This table is for areas normally closed.) ☐ No conservation areas were opened.

Conservation Area	Acreage	Opening Date	Closing Date	Days Open*	Reason
<i>Gurnet</i>	<i>5</i>	<i>10/16</i>	<i>Indefinite</i>	<i>22</i>	<i>Sustainability</i>

*during 2006

Additional Activities

Municipality: Brunswick

Spatfall Enhancement

The following is a list of activities to promote clam settlement such as brushing, flat roughing, tenting or netting. ☐ No such activities were conducted.

Location	Date	Description
<i>Thomas Point Beach</i>	<i>4/8</i>	<i>2 acres roughed and brushed prepared for recieving broadcast seed</i>
<i>Maquoit Bay</i>	<i>6/18</i>	<i>1/2 acres roughed and brushed prepared for recieving seed. Larger clams hand planted.</i>

Predator Protection

The following is a list of activities to protect clams from predators such as trapping, netting and hand collecting. ☐ No such activities were conducted.

Location	Date	Description
<i>Thomas Point Beach</i>	<i>4/8</i>	<i>Area was netted for predator control after seeding, netting was left on flats for 1 week, then removed</i>

Other Activities

The following is a list of other activities that benefit, directly or indirectly, the management program such as educational projects, participation in regional councils and shoreline cleanup. ☐ No such activities were conducted.

Location	Date	Description
<i>Merepoint</i>	<i>6/1-11/15</i>	<i>Shoreline surveys were conducted over summer months by BMRC personel to find pollution sources.</i>
<i>Gurnet</i>	<i>9/11</i>	<i>Shoreline Survey conducted to open Gurnet area to harvesting.</i>
<i>New Meadows coastal clean up</i>	<i>10/1</i>	<i>5 mile clean up consisting of 347 lbs of rubbish removed by 12 harvesters.</i>
<i>Brunswick Town Hall</i>	<i>10/4</i>	<i>Presntation to Longfellow School 3rd & 4th graders the importance of clam management.</i>
<i>Harpswell Island School</i>	<i>5/23</i>	<i>Presentation of intertidal species and local clam management to grade school children.</i>
<i>Regional Meetings</i>	<i>9/14</i>	<i>Held regional meetings to address local WQ classification problems.</i>